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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,315	02/14/2002	Yoshiyuki Batori	1232-4820	3222
27123	7590	07/26/2005	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			WOODS, ERIC V	
			ART UNIT	PAPER NUMBER
			2672	

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/077,315

Applicant(s)

BATORI ET AL.

Examiner

Eric V. Woods

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 1-1 and 15-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-39 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                        |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____   |

## **DETAILED ACTION**

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-11, Group I, drawn to arranging names of attribute planes, classified in class 715, subclass 964, and/or class 345, subclass 619.
- IIA. Claims 12-15, Group IIA, drawn to generating a frame around a two-dimensional plane intersecting a three-dimensional object in a CAD environment that is not a bounding box and that has a label, classified in class 345, subclasses 619 and 665, and/or 706/919 and possibly 715/964.
- IIB. Claims 16-21, 34, and 37, Group IIB, drawn to displaying a range of attribute information for a plane, classified in class 345, subclasses 620 and 623.
- III. Claims 22-27, 35, and 38, Group III, drawn to displaying a position of attribute planes, classified in class 345, subclasses 672 and 676.
- IV. Claims 28-33, 36, and 39, Group IV, drawn to displaying a direction of an axis of attribute planes and of the attribute planes, classified in class 345, subclasses 649 and 651.

Inventions Group I, Group II, Group III, and Group IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention Group I has separate utility such as sorting names of various visual components in different applications that could involve any situation

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where graphical planes are shown on a computer (CAD/CAM, data analysis, many others). Group II has separate utility as clipping information to be around a certain point, which would be useful in any case where text is shown on a screen. Group III has separate utility as showing the cross-section and attribute information in any application where three-dimensional models are being visualized. Group IV has separate utility for showing axial direction and attribute information, which would be applicable in diverse arts such as computer games, three-dimensional visualization systems, flight simulators, and many others. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Groups I, III, and IV, (and the search required for any one group is not required for the others) restriction for examination purposes as indicated is proper.

Further, the number of claims and size of the specification is such that there is substantial burden on examiner to perform a search across all claims. As such, restriction is proper.

Applicant is further advised that the four groups are four separate species, and there is no generic claim found (with the possible exception of claim 12). Each species has been found to deal with a different aspect of how information is shown, where the arrangement of information is performed in ways based on a range (clipping), position

(translation), cross-section (translation / orientation), and axial direction (rotation / position), such that applicant must elect a species for prosecution.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement may be traversed.

Finally, it is pointed out that in any case, even if applicant maintains that claim 12 is generic, applicant must still select a species, and thusly since the choice of Group II was made, the generic claim would be examined and no potential for rejoinder exists.

During a telephone conversation with John A. Harroun (46,339) on 27 June 2005, a provisional election was made with traverse to prosecute the invention of Group II, claims 12-21, 34, and 37. Applicant in replying to this Office action must make affirmation of this election.

During a telephone conversation with John A. Harroun (46,339) on 27 June 2005, a provisional election with traverse was made to prosecute the invention of Group IIA, claims 12-15. Applicant in replying to this Office Action must make affirmation of this election.

Applicant is advised that a petition under 37 CFR 1.144 must traverse **both** the restriction requirement **and** the election of species in order to achieve rejoinder. Further, under MPEP 821.04 practice, there are no separate claims directed to a product and process of making (unless one counts the computer program product, and the relevant claims are being examined with the elected Group II). There are no linking claims in the elected Group. As such, there simply exist no grounds for rejoinder. Finally, even should applicant argue that the various embodiments are not patentably

distinct by filing an affidavit under 37 CFR 1.130 or 1.131 or by so arguing, examiner would dispute that assertion for at least the reasons maintained in the restriction requirement for the subcombinations above. Applicant is advised that examiner will make the restriction / election requirement **FINAL** in the next Office Action absent a good and proper showing of why such requirement is improper. In order to traverse, each ground must be individually addressed in turn, or applicant will lose the right to present those arguments on rebuttal or on petition under 37 CFR 1.144, if applicant wishes to dispute the requirement.

The claims, in their present form, present an undue burden to the examiner to search and generate an Office Action on. The various subcombinations / species each require a specialized search for those particular elements, particularly across non-patent literature. Most of the relevant prior art on this level of detail of the operation of CAD software is found in other literature, which imposes a serious and undue burden on examiner to locate and find, since most of that documentation would be in CAD manuals, papers, and other documentation that is difficult to locate. Searching all of these claims would require a substantial investment of time that meets the standard for "undue burden" required to make a restriction (among many other problems that would be caused by having to search all of the instant claims). Finally, the additional limitations require separate searches and are **not** common between searches as asserted by applicant in the telephone conversation concerning the restriction of Groups IIA and IIB.

Finally, claims 1-11 and 16-39 are withdrawn from consideration as being drawn to non-elected species and combinations.

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Given that applicant is basing the priority claims on four separate Japanese patents, applicant is required to clearly point out which sections of which priority documents correspond to elected Group IIA, in order for examiner to determine which priority date(s) (06/15/2001, 06/21/2001, or 02/20/2001) should be given to the elected Group IIA claims.

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Step S122 in Figure 12, Step S391 in Figure 39, and others.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: plane 217 and frame 217a, mentioned on page 63, lines 14-25, are not present in corresponding drawings 23A-23C.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures

appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Three-Dimensional CAD Attribute Information Presentation. [The terms Apparatus, Method, and/or Apparatus and Method, dependent upon applicant's preference could follow this title].

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The proper format of the Brief Summary of the specification section is listed below. Applicant's Summary section is objected to, as it does not comply with the specified requirements. Further, it does not even summarize the invention at all, but rather recites over 10 pages of sample claims. Firstly, reciting claims in the specification is not appropriate unless it is merely for exemplary purposes, and in this case this is not the case. Applicant is advised to only put at most three sample claims



in the Summary section, and it is unnecessary, redundant, and objected to by examiner to place multiple versions of the same claim (where the only difference is that they are method, system, and computer program implementing the same steps).

- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

Applicant is advised that one US term for computer NC machining is CNC.

Examiner does **not** require applicant to amend the specification to reflect this; examiner merely provides applicant with this information for possible consideration.

\*\*Examiner requires applicant to clarify on page 27, lines 15-20, which elements (201 and/or 202) hold the CAD program, or if applicant intends that either one can hold or provide the program storage, to say so. Since applicant recites means plus function language in the claims, it is necessary that applicant specify details like this. Although in subsequent paragraphs concerning Fig. 3 it is stated that the CAD program is stored in element 202, it is unclear whether or not that is limiting or not, given that either or both of the memories can be hard disks or the like.

The specification is objected to because of the following informalities:

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-Page 39, line 1, step S123 from Fig. 12 is referenced. However, on page 34, line 18, step S121 is mentioned. Step S122 is never mentioned. See the objection to the drawings.

-Page 40, lines 19-24, applicant mentions a three-dimensional display. Applicant needs to specifically state at this location or elsewhere in the specification that the three-dimensional display being discussed is the two-dimensional **view** of the three-dimensional object on the **two-dimensional** output device, e.g. a standard computer monitor.

**\*\*Applicant is required to amend the specification to disclose precisely what means are being used to carry out each step in the examined claims. Given the vast volume of material in the specification, and the drawings, it is unknown which of the many presented embodiment(s) are being utilized. See MPEP 2106-V.2, further if applicant seeks protection under 35 U.S.C. 112, sixth paragraphs, such structures and functions must be expressly pointed out in the specification. They are not.**

Applicant is required under 37 CFR 1.56 to disclose all relevant copending applications (see MPEP 2004).

Examiner has located relevant applications, such as 10/073,352; 10/976,821; 10/430,213; and 10/079,441.

The specification is objected to because these applications are not listed. To traverse this objection, applicant should amend the first sentence of the specification to include such a listing. Examiner must know relevant copending applications in order to consider double patenting issues under 35 U.S.C. 101 and the like.

The specification is objected to because applicant has not noted relevant prior art of record to the same assignee, particularly US 5,815,150 to Shimizu and US 5,808,616 to Shimizu, in the Background section of the specification. Applicant should amend the specification to at least mention these patents in the Background section in order to traverse this objection, or submit these references in an IDS pursuant to 37 CFR 1.97 and 1.98.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 15 is rejected under 35 U.S.C. 101 as non-statutory since the claimed invention is directed to non-statutory subject matter, but it is a computer program per se. The proper wording of the preamble for claim 1 to be statutory would be an "A computer-executable program tangibly embodied on a computer readable medium comprising:" See *In re Warmerdam* and MPEP 2106. Appropriate amendment is required.

In order to expedite the prosecution of the instant application, the claims rejected above under 35 U.S.C. 101 (nonstatutory) are further rejected as set forth below in anticipation of applicant amending the claim to place it within the four statutory categories of invention.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 12-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, the specification does not specifically set forth which embodiment(s) are the recited means in the claims mentioned above. Applicant can overcome the rejection by amending the specification to note which embodiments are the recited means; otherwise, applicant's claims will not be enabled and will also fail to comply with 35 U.S.C. 112, sixth paragraph.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 12-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the specification does not specifically set forth which embodiment(s) are the recited means in the claims mentioned above. Applicant can overcome the rejection by amending the specification; see the Specification section above.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled

in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “attribute arrangement plane” in claims 12-21, 34, and 37 is used by the claim to mean “a view plane that is substantially perpendicular to the selected viewpoint”, while the accepted meaning is “a plane of color (e.g. a four-plane configuration in an RGBA schema) or a plane wherein some attribute of the image is manipulated or changed.” The term is indefinite because the specification does not clearly redefine the term.

Claims listed above are further rejected because they use the term “attribute” to mean “coordinates, positions, or the like”, where in standard American English and standard terminology in the art, an attribute of an object is something fundamental to the object, e.g. coloration, markings, or similar. The claims are indefinite because the specification does not redefine the term.

Claims 12-15 are rejected as indefinite because, as stated above in the rejection to the specification, it is unclear which storage unit (internal or external) is the cited storing means.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 14 is an information processing method implemented by the system of claim 12, and claim 15 is a computer program implementing the method of claim 14. Any computer-implemented method meeting the requirements of claim 14 is valid against claim 15 without further comment, and since the system of the instant application in claim 12 is implemented using software, one reference is valid against the other two claims without further comment. Examiner to the best of examiner's understanding is interpreting the "means" requirements, since applicant has not spelled them out.

Claims 12, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al (US 5,701,403 A) in view of Ryals et al (US 5,803,914)('Ryals').

The preambles have not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re*

*Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

As to claims 12, 14, and 15,

An information processing apparatus comprising:

-Attribute input means for inputting attribute information for a 3D model; (Watanabe in Figure 1 shows a system with a graphical input device 31 that inputs a figure and the like – see 2:13-25 as prior art, and his system allows users to input information (see Figure 2) where user interface 1 allows the user to create figures requiring less input (see 4:55-65, where such information is input). In 5:49-67, the user inputs commands and generates placement of objects. In 6:1-25, input is further discussed with respect to the user putting in two- and three-dimensional figures. In 13:22-41 the user interface is further discussed, where the user can put in two dimensional figures and three-dimensional objects, which clearly maps with the attribute input means of the instant application, and further Watanabe discusses inputting attributes in 14:20-40, where a shape attribute is input by the user. As a further example, see Figures 11(a) and 11(b), where in 21:17-60 it is specified that the user specifies the creation a two-dimensional object with a hole in it and then adds thickness to create the three-dimensional object in 11(a) or the reverse procedure as the alternate path in 11(a) or the system shown in 11(b). Another embodiment is shown in Figure 12, with user interface 11 for input (see part 19, the view plane management database – 23:19-30)

-Attribute arrangement plane setting means for setting an attribute arrangement plane being a virtual plane with which said attribute information is associated; (Watanabe

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17:38-50 teaches that virtual planes are created, e.g. view planes perpendicular to arbitrary viewing directions – In Figure 10 for example, the system creates a view of an arbitrary view plane perpendicular to a viewing direction if required, or generates the requisite three-dimensional view (as in Figure 4(a) and 4(b), where the three-dimensional view is shown on the right, and the cross-sectional view is shown on the left, where the arbitrary view plane has been drawn that intersected the three-dimensional object and the portion of the object in front of the view plane has been removed. The previously cited input means allow the user to specify the location of such a plane. In any case, the real point of Watanabe is in Figures 16(a)-(c) and 17(a)-(c), as explained in 29:45-30:15, where it is shown how the attribute planes intersect an object)(Watanabe also teaches in Figures 26(c) and 29(c) that each view is labeled with a name of its own – e.g. VW1 for View 1, VW2 for View 2, and the like. Further, the system automatically annotates views with that information. It can also optionally show elements such as “horizontal”, “vertical”, and the like to illustrate dimensions and orientations on drawings (see 24:45-63). In 6:24-48, it is noted that the user can annotate planes and the like with notes and various kinds of annotations, where clearly an annotation could be some kind of a label)(Ryals Figure 9B shows that the image data is divided into slices, and that such slices are numbered (which is a label) – see Figure 10, and the user can select the desired slice number, see especially Figure 12.)

-Storage means for storing said attribute information in association with said attribute arrangement plane; and (Watanabe 5:49-65 recites a storing section to store attribute information concerning the specific attribute arrangement plane, and clearly each plane



in Watanabe can be separately defined so that a plurality of intersection planes can exist)

-First frame setting means for setting a first frame so as to surround a range of the attribute information associated with said attribute plane arrangement.

(Next, Watanabe then shows Figures 19(a), 19(b), 20(a) and 20(b), with particular emphasis on Figures 19(b) and 20(a). The dashed lines outline standard two-dimensional projections views – that is planes 109 and 110 outline the views shown in Figure 19(a), where one is of the cross-section of the cylinder formed by the intersection of plane 109 with the cylindrical object 113, and a long view of the object as seen from the side. The elements 111 and 112 represent two-dimensional views of the object in the viewing planes. The **really** significant aspect is the surfaces 114 and 115 that intersect with the object 108, that have a rectangular outline around them that is dashed. This is comparable to the frame recited by the instant claim, where it really describes a rectangular outline around a region or view plane indicating the object.)

In short, Watanabe discloses almost all elements of the instant invention, where the user input system is present, and the user can select a plane that intersects with an object. The **concept** of putting a border around such an intersection plane is shown in Figures 19(b) and 20(a) and would be obvious, because it would allow the user to identify the area that a particular plane or view is intersecting with, as in those Figures. Watanabe also shows the concept of annotating views (Figs. 26(c) and 29(c)) that may be planes that intersect an object (see for example Figures 16(a)-(c) and others), so it would be obvious that planes could be annotated (Figs. 14(a) and 14(b) for example)).

Further, the system of Watanabe also supports dividing objects up into viewing areas or planes (Figs. 40, 42, 45, 48 and the like) where the object can be viewed from different angles. Finally, the concept of the applicant's invention is simply clearly shown in Figs. 19(b) and 20(a) – compare with Drawing 33 of the instant application.

The system of Ryals is directed to a similar problem-solving area, that of visualizing three-dimensional objects using two-dimensional slices and the like. Ryals clearly teaches the idea of having many slices that are part of a three-dimensional object, and the idea of labeling each slice different (e.g. different numbers) that are aligned to different portions of the object.

The combination of the labeling of Ryals for each intersecting plane – and the idea of multiple intersecting planes or slices for a three-dimensional object -- would obviously enable closer analysis of a three-dimensional object in the system of Watanabe, where a user could set up regular slices through the object from an arbitrary viewpoint (as already established that Watanabe can do anyway) and further could be annotated with a label, note or the like (e.g. the numbered slices of Ryals) so that the user could track each slice with ease. Using the outlining method of Figs 19(b) and 20(a) would be obvious since they make the two-dimensional or view noticeable, and annotating each slice with a label (e.g. VW1 in Fig. 26) is obvious anyway, numbering each plane and having the rectangular frame would also be obvious. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the systems of Watanabe with Ryals because the concept of Ryals to have many slices all labeled would allow the user to more effectively explore a three-

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dimensional object in Watanabe, and having each plane with the frame or outline in Figs. 19(b) and 20(a) would make them more noticeable. Therefore, all limitations have been met.

As to claim 13, Figures 19(b) and 20(a) of Watanabe show two of the attribute arrangement planes with the dashes around them, and Ryals clearly teaches the use of multiple planes with labels on them, and Watanabe clearly teaches multiple views of an object in any case, and that such views can intersect the object (Figs. 16(a) and (b) *et al*). The rejection to claim 12 is incorporated by reference.

***Allowable Subject Matter***

Examiner would suggest modifying the claims in such a way as to get around the instant references, which were found after the last conversation with applicant's representative. The idea of the rectangular outline of the objects actually **implemented** in a CAD system still seems to the examiner to be somewhat novel, and examiner would advise focusing on how the plane would actually move with the viewpoint of the user and keep a certain orientation versus simply its existence. The instant references applied do not, per se, provide terribly much information in that direction.

**\*\*THIS IS IN NO WAY AN ADMISSION BY EXAMINER THAT SUCH REFERENCES DO NOT APPLY\*\*\***. Examiner is merely observing that the inventive **concept** has merit, and that further tailoring of the claims is necessary to overcome the prior art of reference.

**Conclusion**

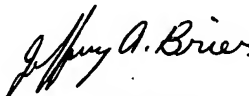
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the 892 for various art that is made of record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric V. Woods whose telephone number is 571-272-7775. The examiner can normally be reached on M-F 7:30-4:30 alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 571-272-7664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eric Woods  
July 14, 2005

  
JEFFERY BRIER  
PRIMARY EXAMINER